Report by M. Finucane, Director, Department of Land Records and Agriculture, Bengal, on the introduction of Grain Elevators and impurities of wheat in the Lower Provinces of Bengal.

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No. 1603Agri.

FROM M. FINUCANE, ESQ., C.S.,

Director of the Department of Land Records and Agriculture, Bengal,

TO THE SECRETARY TO THE GOVERNMENT OF BENGAL,
REVENUE DEPARTMENT.

Dated Calcutta, the 14th July 1890.

SIR,

I BEG to acknowledge the receipt of your No. $\frac{286}{43}$, dated 23rd January 1890, calling for report on certain proposals made by Mr. James G. Smith of Bombay, relative to the formation of a company for the introduction of grain-elevators into India. In reply, I have the honour to report that I have consulted the public bodies, firms, and individuals, named in the margin, on the subject, and now forward their reports.

1. Secretary, Bengal Chamber of Commerce.
2. Secretary, Agri-Horticultural Society of India.
3. Vice-Chairman of the Port Commissioners.
4. Shipping Master, Calcutta.
5. Collector of Customs, Calcutta.
6. Managers of State Railways.
7. Messrs. Ralli Brothers.
8. „ Moran & Co.
9. Secretary, Brokers' Exchange.
10. Messrs. Anderson, Wright & Co.
11. „ Gladstone, Wyllie & Co.
12. „ Balmer, Lawrie & Co.
13. „ Lorraine King & Co.

2. It will be seen that the preponderance of opinion is much against the proposals made by Mr. Smith. The Bengal Chamber of Commerce write thus—

The Committee of the Chamber of Commerce have given their best attention to the papers forwarded with your docket No. 463-Agri, dated 4th March, and I am now directed in reply to state that in their opinion any attempt to introduce the grain-elevator system into this country would be at least premature. Mr. James G Smith, in his letter to the Secretary of State, dated 17th September 1889, after enumerating the benefits that would result from the system, and pointing out directions in which the assistance of Government would be necessary, suggests a tentative commencement of operations by the "Grain Clearing and Elevator Company," pending which the efforts of the promoters would be directed to securing a demand for the clean and graded wheat.

The result of the agitation of last year in favour of clean Indian wheat does not encourage the Committee in the belief that the efforts alluded to by Mr. Smith would meet with any great amount of success. But should a real demand arise for clean Indian wheat, they are of opinion that private enterprise will be equal to the occasion without requiring either the assistance of or a guarantee from Government.

It is not necessary to discuss the suitability of the elevator system to the conditions of the grain trade, at least on two sides of India, further than to say it is open to doubt whether, considering the heavy expenses which the proposed Company would incur, such a Company could successfully compete with the simple but effective methods of cleaning already known to those who deal in grain. The Committee moreover, consider that the proposal that the Company should hold grain for the owner for an indefinite time, and accept the responsibility for its condition, is scarcely one suited to India, owing to the risks attending keeping wheat in this country for any length of time.

The Committee would point out that the scheme contemplates concentrating the grain trade at a few important stations on the principal wheat-bearing railways, and to this extent is diametrically opposed to the policy pursued for the last eight or ten years by Government, a policy which, by abolishing the special reduced rates allowed by the railway administration, for large consignments, aimed at giving petty stations equal facilities with the larger depôts for sending produce to the coast ports. The Committee understand from the principal exporters of wheat that the opening up of these petty stations is largely responsible for the deterioration in the cleanness of the wheat brought to this port, for whereas this produce was formerly concentrated at some few important stations, there piled and rebagged, it is now forwarded direct, without any piling, handling, or cleaning, to the coast port. While the

Committee are of opinion that it is now impossible to nullify the results of this policy and revert to the old system of special rates for consignments of 200 tons, they would urge most strongly upon Government the necessity of permitting the railways to raise the limit for special class consignments of wheat and seeds intended for export, from the present limit of a wagon load to a minimum load of 50 tons.

This will have the effect of making a broad line between wheat intended for export and that for local consumption.

It would assist in raising the standard of cleanliness.

It would place the trade in the hands of men of some little means, instead of opening it up, as at present, to impecunious gamblers.

It would lessen the work needful to be done at the shipping port, and permit of the grain being properly sampled and examined, and so put a check to the false packing and swindling which is encouraged by the system of petty consignments.

The Committee have reason to believe that if this slight reform were introduced, the benefit resulting to the trade would be so great as to leave little to be desired in the condition in which rail-borne wheat would reach the home market.

2. The Agri-Horticultural Society say—

As the different Chambers of Commerce have been consulted, and as the views of the commercial community will thus be laid before Government, the Society deals with the question wholly in its relation to the cultivators.

The establishment of the elevators for the purpose of cleaning grain for export is, the Society consider, not likely to be of any direct benefit to the grower, for the reasons set forth in the following paragraphs.

The conditions under which wheat is grown in India, the small quantities each grower places on the market, the poverty of the people necessitating their selling their produce without delay, and other causes, precludes there being any chance of their being able to avail themselves of the facilities for cleaning offered by the system.

As a rule Indian wheat is not purposely adulterated by the growers. The impurities which exist in it when it leaves their hands are due to the system of cultivation and thrashing which are too well-known to need description here.

The growers winnow and clean their wheat to the extent their crude appliances will admit, and undoubtedly some of the earth from the threshing-floor and an admixture of other grains must remain in the crop. This is estimated at 2 to 3 per cent. of earth, peas, and barley. But as the Calcutta contract is for 5 per cent. up to August and 6 to 7 per cent.* after that, it therefore pays the seller to adulterate his batch up to 2 per cent. over the guarantee or he will lose on the average. This is such a well-established custom that a regular market price for suitable adulterants exists in the exporting districts, and the seller purchases such materials and mixes it with his wheat. The shipper has the lot examined and makes the best bargain he can as to allowance with the seller and sells "fair average" at home: practically his profit is what he gets in this way.

It is probable that even the buyers who collect grain, buying the small quantities sold by individual growers at *hâts* and bazars, and selling again to dealers and merchants' agents, are not likely to be able to deal directly with exporters through the elevators.

There is one feature in what is known as the elevator system which would probably affect the grower prejudicially.

The system is that all grain passing into the elevator is graded and bulked, and a receipt given to each constituent, who, when he requires his grain, receives his quantity from the bulk.

The bulking of such large quantities gives a more even standard than at present exists in India, and these recognised standards again being fixed, their relative prices are fixed.

As a matter of practical convenience the number of standards or grades will have to be limited and the present elasticity done away with, so that a superior sample falling into a given class will fetch no more than an inferior sample which is just good enough to pass the standard.

There will therefore be no incentive to buy the best quality of a certain class; the endeavour will be to get the cheapest grain which will pass the standard. This may not matter to the merchant, but the grower who produces a better sample of grain of the same class as his neighbour's will be no gainer.

I am directed to say that for the reason already given this Society does not enter into the question of the effect which the introduction of elevators would have on the trade in wheat. The Society is aware that there is much to be said from a commercial point of view for the establishment of fixed grades of clean wheat, and for other results of the elevator system. Without offering an opinion on these points or on the system as a whole, I am to point out that in India the existence of the weevil pest would have to be taken into consideration as a factor against the collection and storing of grain in the manner proposed, and special means would have to be contrived to guard against its ravages, more especially were wheat held over for any time.

The Society is aware that the papers before them contain merely an outline of the scheme proposed. They think, however, that there being no allusion to one of the greatest evils with which Indian wheat has to contend is a serious omission.

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* Should be 5 per cent. up to 30th June, afterwards 6 per cent.

I am to submit that, if the object of the Government in entertaining the scheme under consideration is to put a stop to the intentional adulteration of wheat in India, a simple remedy exists, viz., to enact that no contract for purchase or sale of wheat will be considered valid unless the price agreed upon is held to be for pure grain. As long as sellers can go into court and enforce a contract for wheat with 5 per cent. to 10 per cent. adulteration, the evil cannot be stopped. If the price paid was for pure wheat only, no one would expend money on the railway carriage of adulterants which would be deducted from the price, and no exporter would pay freight and charges, unless he got from the seller the full equivalent of what he would lose for any adulterations.

3. The Port Commissioners are of opinion that "the scheme contemplated is not one which is suited to this country, or one which should have the support of Government of the kind asked for." It, however, seems to them that if the requirements of trade necessitated the introduction of such a system, and there was a prospect of its proving remunerative, it would be taken up by private enterprise.

Messrs. Anderson, Wright and Company remark—

The application of the American system to India is, in our opinion, not what is wanted. Indian wheat is all shipped in bags, whilst American goes to a large extent in bulk, and the elevator is of no use where the bagged article is the rule. This Messrs. R. S. and Company really concede when they come down to proposing to open at a few stations, and conduct thereat, simple cleaning and grading operations, returning the grain into bags properly secured.

We think most firms having up-country connections have tried this, but home buyers and brokers are too powerful and will not allow settlement to be made based upon the clean wheat. With an ordinary graded netting and a few coolies, 100 tons daily can be turned out in any godown at a nominal expense without a Government guarantee, and up-country firms, both Native and European, would gladly see a market for clear wheat forced on exporters. This can be accomplished by Government enacting, both here and in England, that no contracts will be recognised in a court of law unless based on a price for the pure wheat. We have pointed out again and again that there is no justification for the acknowledgment in court of a contract for wheat with 5 per cent. or 10 per cent. adulteration. The only basis of sale recognized by law should be that of pure wheat, and were this the case no up-country dealer would risk paying railway carriage on five tons of dirt for every 95 tons of pure wheat, and no buyer would accept of wheat without getting the full equivalent of the loss he would sustain on the refraction by sending the parcel to Europe. As long as the law recognises contracts for adulterated wheat, so long will the trade in it continue.

4. Messrs. Ralli Brothers have no experience of the working of elevators in America, and they are not in a position to express a decided opinion on the subject, further than to say in a general way that, viewing the distinct nature and diversity of quality of the Indian grain compared with American, they very much question whether the introduction of any such system in the handling of Indian grain would be successful.

Of the agents and managers of railways, the Agent of the East Indian Railway says that until the elevators are introduced the purity of Indian wheat and seeds for export cannot be guaranteed. At the same time he remarks that until a proper understanding is arrived at between seller and buyer, it would be useless to attempt to introduce them.

The Manager of the Eastern Bengal State Railway states that the railway traffic in wheat and seeds on that line is small, and it is unlikely that an elevator would be required at any of the up-country stations on the Eastern Bengal State Railway. He adds that if higher railway freights could be obtained for wheat dealt with in elevators, the consignor would consider that he paid the Elevator Company the cost of handling his grain, and would probably call for a corresponding reduction in the rates. The railway would effect no practical saving in being relieved of the cost of receiving and watching the grain. He further says that the free grant of land at metropolitan stations and on Port Trust property is a very large concession, but the demands of the promoters appear to him generally to be exorbitant. If they have any real belief in the effects to be produced from the introduction of the elevators, on which so much stress is laid, the Company should be assured of the success of the project on its own merits without calling on Government to guarantee interest and to grant free land. He further adds that the venture is a novel one in this country, and if the promoters were prepared to erect elevators on one railway, and at one port, they might reasonably be given a monopoly for 25 years and land free of rent until, such time as the undertaking paid over a certain percentage, when arrears could be made good. But as regards the proposals for cleaning, grading, and storing wheat without incurring expenditure on elevators, it seems to him that if such

a course could be commercially undertaken at a profit, it would have been introduced long ago without any company or guarantee.

5. The Manager of the Tirhoot State Railway is strongly in favour of the scheme of having elevators at large and important stations, but he doubts very much their giving any return on the capital outlay on a line like the Tirhoot State Railway, where the stations are situated so closely together. He is of opinion that the railway staff should not have anything to do with the working of the elevators from a mercantile point of view, such as sampling, &c. The railway might give lands and sidings, but he is opposed to giving any guarantee or granting a monopoly to any one firm or company.

The Manager of the Nalhati State Railway is of opinion that the scheme is one which deserves the encouragement and support of Government.

6. My personal opinion is that the general scheme described in paragraph 1 of Mr. Smith's letter, dated 17th September 1889, is one which cannot be seriously entertained, and need not be considered or criticised in detail. It would be obviously out of the question, to provide land free of cost, for the Company's purposes at or near every railway station on every line "built or to be built" in the grain-producing districts, or to guarantee that similar facilities will not be afforded to competing companies, or to guarantee interest at 4 per cent. on any amounts which the Company may deem it desirable to expend, and it is very doubtful whether arrangements can be made in India for countersignature, by Government officials, of certificates of the grading of wheat. As pointed out by Viscount Cross it is clearly impossible that Government should assist Mr. Smith's project in these matters to the extent suggested, and the only practical question for consideration, at present, is, whether any, and, if so, what support should be given to the specific proposals described in the latter part of Mr. Smith's letter thus—

In this view, we would propose to select a few stations on some of the principal grain-carrying railways, and to conduct thereat simple cleaning and grading operations, returning the grain into bags, properly secured, and covered by certificates as to the quantity and quality, thus discarding for the present the idea of the elevator proper.

In the English markets our efforts would be directed to securing a demand for the clean and graded article, and further development of the scheme would be dependent upon the results obtained. We have reason to believe that in the English grain centres, accustomed to the American system, the certificates above referred to will speedily receive the credit they deserve, and so soon as they become recognised in the English markets, and thus act to the benefit of the producer, the steady development of the scheme may be confidently anticipated.

The railways on which it is proposed to commence are—

The Great Indian Peninsula Railway, | The Bombay-Baroda-and Central India Railway,
The Bengal-Nagpore Railway,

these being contributory to the one shipping centre of Bombay, between which place and Liverpool the trade is considerable, while Liverpool is a port already accustomed to the American system of clean and graded grain.

The authorities of the abovenamed railways have been addressed, and, so far as at present ascertained, the scheme will be favourably received and supported by them.

The stations at which machinery is proposed to be erected will be selected in communication with the companies.

It is probable that in all some fifteen stations at the outset will be provided with cleaning, grading, and weighing apparatus and with some elevating machinery, all of which will have to be sheltered from weather by buildings sufficiently strong to withstand the vibration of the machinery, and constructed with some regard to their future uses.

The machinery may be worked by bullock or steam power, as circumstances may require It appears to us that the undertaking will necessitate the sending to India of a few qualified men to commence, conduct, and instruct in the operations, but we would desire to avail ourselves of the assistance of the Railway Companies' staffs to the utmost extent possible.

We believe that the whole of the machinery required in the first instance is readily obtainable in England, and, including freight, railway charges in India, and other expenses we estimate its cost at	7,500
The buildings at fifteen stations, with cost of fittings and erecting machinery, would probably cost	10,000
The pay and allowances of staff, preparatory to the commencement of work, may be taken at	5,000
And preliminary and contingent expenses at	2,500
Making a total of ...	25,000.

Besides the keeping the capital expenditure within the narrowest limits, it would be our object to keep down the working expenses and charges as low as possible. In the more advanced stages of the undertaking, the charges to be made will, beyond doubt, be far more than covered by the saving in cost of handling, &c., but during the preliminary operations just described the charges for cleaning and grading must be reduced to a minimum, to be covered by the enhanced value of the clean grain, and still leave the ryots sufficient inducement to avail himself of the advantages offered.

During this period of education and experiment, we can hardly expect the machinery to do more than pay the expenses of its working, but each subsequent step in advance should put our operations on a more satisfactory footing.

So soon a demand for clean and graded wheat is secured in the United Kingdom, a demand on the part of producers or owners for the cleaning and grading of their wheat will certainly follow, and as this increases so will the present scheme progress towards the erection of a complete system of elevators, and as success becomes assured on one or more lines of railway leading to one port, so will other lines of railway and other ports be supplied with similar advantages.

All extensions of operations involving expenditure beyond the amount of £25,000 referred to in this paper would be submitted for the sanction of the Secretary of State for India in such manner as he may direct, and we confine our present request for a guarantee of interest to a half-yearly payment, calculated as the rate of 4 per cent. per annum on the £25,000 already indicated, and on the subsequent sums sanctioned from date of such sanction, for a period of five years from that of the acceptance of the proposals which we have the honour to make.

The capital of a company sufficiently important to deal adequately with the subject of our representation must necessarily be large, but at starting the amount to be called up would be limited to £25,000, and during the continuance of the guarantee further calls must be restricted to amounts necessary to cover extensions duly sanctioned.

7. It will be observed that the proposal here is, to abandon at first, the American principle of the grain elevator, to return the grain in bags, after cleaning to the owners, and to let them dispose of it as best they can. But, if, as is alleged, an adequate price cannot now be obtained for clean grain, and if it pays, as it certainly does, to have the grain as produced from the threshing-floors, mixed with dirt, the question arises why should the owners bring their wheat to the elevators to be cleaned, and if they did bring it, why should the fact of its having being cleaned secure for it an adequate price, seeing that clean grain does not now fetch an adequate price. Wheat can now be cleaned at a very low cost, and machinery was introduced for the purpose by Messrs. Ralli Brothers, and others, but it was found that the clean grain, when exported, did not realise a relatively better price, and it is not clear how the fact of its having been cleaned by an elevator will cause it to do so, especially as the process of cleaning by elevators will, according to Messrs. Ralli Brothers, and others, be more expensive than cleaning by native agency with sieves. For these reasons I am of opinion that ryots and traders will not bring their grain to the elevators to be cleaned, if the grain, when cleaned, is to be returned to them, and they are left to do the best they can in obtaining an adequate price for it. But if Mr. Smith's Company were to buy the grain from the cultivators and traders, on the best terms they can, and were then to clean, grade, and export it, at their own risk, and were thus to endeavour to create a market for clean grain at home, it is a question for consideration whether Government would not, in that case, be justified in giving land for the buildings free of cost at or near 15 selected railway stations, on the lines named, and in guaranteeing interest at 4 per cent. for five years on the outlay for buildings and machinery, up to a maximum of £1,000 per annum. On this point I have consulted, at a meeting (the record of proceedings of which is annexed) Messrs. Ralli and Petrocochino, who as merchants, are largely interested in the wheat trade, and Mr Pallachi, who is one of the principal brokers interested in the trade from the point of view of Native dealers. It will be seen that Messrs. Ralli and Petrocochino are of opinion that Government even in the case supposed, would not be justified in giving to the Company the limited assistance suggested, because the scheme of grain-elevators has, in their opinion, no chance of success. Mr. Pallachi thinks that this plan is worth a trial, provided that no monopoly is given to the Company. If the Company believes in the efficacy of their elevators, in reducing the cost of cleaning grain, and if they believe they can get an adequate price for clean wheat, then they should, he thinks, be prepared to try the experiment on these terms. Mr. Pallachi does not, however, himself believe that the elevators

will pay or that the promoters will be able to obtain a remunerative price for clean grain.

8. I am of opinion, that if any assistance is to be given to the Company, it should be in the way above suggested. If the Company are willing to run the risk of erecting elevators, at 15 railway stations, at a maximum cost of £25,000, and if they will make their own arrangements for the purchase and disposal of their wheat, and thus endeavour to create a market for clean grain in Europe, Government may, I think, having regard to the importance of the object in view, encourage them to the extent of guaranteeing interest of £1,000 a year for five years and of giving free sites for their buildings. If the Company succeed in creating a market at home for clean grain at remunerative prices, they may be left to extend their operations without Government interfence, and if they fail, the loss to Government can, in no case, be more than £5,000 and would probably be less.

9. It will be observed that the Chamber of Commerce, (which originally moved Government to impress on cultivators the necessity of producing clean grain,) hold that the system of elevators is unsuited to India, and from what has been said, it is clear that the introduction of them cannot, at best, have much effect for some time to come.

10. The question then arises, can nothing be done towards stopping the system of deliberate adulteration now practised and towards and securing a supply of clean grain for export? Messrs. Anderson Wright and Company, and the Council of the Agri-Horticultural Society suggest that the only basis of sale recognised by law should be that of pure wheat, and were this the case, no upcountry dealer would, they say, risk paying railway carriage for five tons of dirt for every 95 tons of wheat, and no buyer would accept dirty wheat without getting the full equivalent of the loss he would sustain by sending the parcel to Europe. They propose that an enactment be passed, both here and at home, to the effect that no contract will be recognised in a court of law unless based on a price for pure wheat. The result of such an enactment would be, that not only would there be no inducement to adulteration left, but growers would have an incentive to produce clean grain, which they now have not, and in a short time they would probably do so. Mr. Ralli says the Calcutta merchants would have no objection to such an enactment if the home merchants have none. The Calcutta merchants are, he says, the servants of the home merchants; they can, and will send pure grain if it is wanted, and paid for; it is because it is not wanted that it is not sent. Mr. Ralli is, however, at the same time, of opinion that the proposed enactment would be objectionable on general grounds as being an unnecessary interference on part of Government with trade.

11. The Chamber of Commerce are also of opinion that there is no need for legislation on the subject, and regard the enactment of a law, on the terms proposed, as a most undesirable interference with freedom of contract. I also am of opinion that the time has not yet come for legislation of this kind, which should not be had recourse to, unless and until the evil complained of is clearly shown to be injurious to the public interests, and until all other remedies have been tried and failed.

12. The question then is what other remedies are possible. In my letter No. 1265, dated 18th August 1887, paragraph 10, it was suggested that wheat might, like oil-seeds be sold on analysis at home. This proposal was discussed at the conference between Viscount Cross and gentlemen interested in the wheat trade, held at the India Office on the 8th May 1889, and it was stated by Mr. Todd, on behalf of the London Corn Trade Association, that the proposal was impracticable for the following reasons:—

"That wheat might be sold at home on analysis like seeds (Mr. Finucane's report, page 13). That the Corn Trade Associations might be asked to fix the refraction on all sale contracts of wheat at not over 2 per cent. (Mr. Forbes Adam's letter to His Excellency the Governor of Bombay, paragraph 26).

"This question of selling wheat on a percentage rate of refraction has on various occasions occupied the attention of the Sub-Committee (Indian section) of the London Corn Trade Association, and had also been discussed by the General Committee of the London Corn Trade Association, but the principle so far has been considered impracticable.

"There is a great difference between selling seeds and wheat on analysis.

"1st.—The quantity of any description of seeds sold is very considerably smaller than that of wheat.

"2nd.—Seeds, especially linseed (by far the largest trade in seeds), show little variation in quality, and hence it is practicable in large parcels of linseed to have the analysis made on *one* average sample to determine the whole shipment. This, with the variations in quality, admixture, &c., &c., in wheat, almost from bag to bag, is *impossible*, and therefore it would be necessary for every small parcel of 50 tons or 100 tons to have separate average samples drawn, and have them analysed.

"3rd.—In seeds, owing to the above slight variation in quality, a comparatively small sample is analysed; whilst in wheat a considerably larger sample will have to be analysed; and thus the cost will be greatly increased.

"The charge for analysing a sample of linseed is 5*s*., whereas on wheat we believe it has not yet been done under £2-2, a very heavy charge on 50 tons or 100 tons of a poor article like wheat.

"4th.—The quantity analysed being larger, it naturally will take much longer to analyse, and when in a large parcel of 2,000 to 2,500 tons of wheat something like 20 or 25 analyses will have to be made it can easily be understood that delay must follow, rendering the final settlements protracted and unsatisfactory.

"5th.—Lastly and chiefly, seeds are not liable to weevil. Wheat is, and sometimes it suffers *most severely* from this inherent defect. How would the advocates of analysis deal with the weevil flour dust? If they take it as refraction it would be very unjust to the shippers who, although they may have cleaned down and shipped in India a parcel containing only 2 per cent. refraction, may be called upon through the wheat being attacked by weevil during the voyage to allow on final settlement 5 per cent. and even 6 per cent. or 7 per cent. on refraction, besides making an allowance for quality in consequence of the excessive weeviled condition of the said parcel. If on the other hand weevil flour dust is admitted *not* to be an heterogenous substance, how is it to be separated from the fine earth, sand, or other impurities? * * *

"Seeing, therefore, that the natural condition at present of Indian wheats is to contain about 4 per cent of admixture on the Bombay side, and 5 per cent on the Calcutta side; that under the circumstances, it is not practicable to induce the Indian shippers to change their system of purchasing and instead of buying on the above natural refractions to introduce an artificial basis of a 2 per cent refraction; that buyers *practically* are not prepared to pay a *proportionately* higher price for cleaner wheats; that the system of selling on analysis here is altogether impracticable and unadvisable; that the conditions of the Indian wheat trade, although slowly, are gradually improving; that India ships and sells all her wheat available for export year by year, and that her development, in this branch at least, is not prevented by the present condition of her wheats; that the interference of Government in questions of contract as between seller to buyer is inadvisable,—our opinion is that it is not advisable or desirable to try and force sudden and radical changes in the natural condition of a trade, but that it is preferable to let the improvement come gradually out of the trade itself, taking it for granted that merchants, sellers and buyers, shippers and consumers, &c., are too keenly alive to their interests to allow any opportunity for improvement in their trade, when such becomes advisable, to pass by.

13. In answer to these objections it may be stated that Indian wheat is, as a fact, now bought on analysis in Marseilles, and it appears reasonable to believe that what can be done on one side of the English Channel can also be done on the other. Messrs. Ralli and Petrocochino, who can speak with authority on the subject, say that, so far as they can judge, what is done in Marseilles can also be done in London. The difficulties connected with weeviling are not, they say, insuperable, while Mr. Pallachi says there are no such difficulties. Assuming there are such difficulties, it appears reasonable to suppose that if they can be surmounted on the system of purchasing by fair average quality, they can be also got over if contracts are made on the basis of pure grain. I am informed by competent authorities that it is far easier to refract wheat than oilseeds, and that the process is less expensive and more expeditious. Again, to the statement that wheat, on the Calcutta side, in its normal condition, contains 5 to 7 per cent. of admixture, and that for this, among other reasons, it is not desirable to force sudden and radical changes on the normal condition of a trade, it may be answered that it is *not* a fact that the normal condition of wheat, on the Calcutta side, is to contain 5 per cent. of admixture. If it were a fact, there would be no place for wilful and deliberate adulteration. It is only with a view to degrade wheat, as produced from the threshing-floors, from its normal condition, down to the required standard of refraction, that adulteration is practised or has any object. "The growers," the Agri-Horticultural Society point out, "winnow and clean their wheat to the extent their crude "appliances will admit, and undoubtedly some of the earth from the threshing-"floor and an admixture of other grains must remain in the crop. This is "estimated at 2 to 3 per cent. of earth, peas, and barley. But as the Calcutta

"contract is for 5 per cent. up to August and 6 to 7 per cent. after that, it "therefore pays the seller to adulterate his batch up to 2 per cent. over the "guarantee or he will lose on the average. *This is such a well-established custom "that a regular market price for suitable adulterants exists in the exporting districts and "the seller purchases such materials and mixes them with his wheat.* The shipper, it "is added, has the lot examined and makes the best bargain he can as to allowance "with the seller and sells fair average at home; practically his profit is what he "gets in this way. In Calcutta, where there are no threshing-floors, the refuse "fannings and screenings from merchants' godowns and millers' works are bought "by regular dealers whose head-quarters are at Hati-"bagan. This is sold as pigeon food, and is the basis "of such adulterants as are used in Calcutta. In the mofussil the adulterants "used, include refuse, small bits of brick, cowdung, and a large proportion of "earth. The adulteration thus consists in *putting back into* the grain a given "quantity of what has been previously removed, so as to degrade it to a low "standard."

Agri-Horticultural Society's letter, dated 5th June 1890.

In my report No. 391-T, dated 7th July 1886, paragraph 5, it was shown that the Manager of the Dumraon Raj "had a golah at Itari near Buxar, from "which he used to sell wheat, on rather a large scale, to the Agent of Ralli Brothers "at Buxar. The wheat as he got it did not contain 5 per cent of foreign matter. "Accordingly the Manager's servants were directed to mix two maunds of earth "with every hundred maunds of grain, so as to bring the adulteration up to the "required standard. This earth was treated with water and specially prepared for "purposes of adulteration."

Major Boileau, then Sub-divisional Magistrate of Dinapore, wrote: "The "grain-dealers wilfully adulterate their grain, adding about two maunds and "thirty seers of dry clay, *bhusee*, and other grains to every hundred maunds of wheat," and Mr. Carnduff, Sub-divisional Officer of Hajeepore, said: "In the "hands of the middlemen the grain is lodged in golahs, and such grains as "*akla pipra* are intentionally added with a view to adulteration." Again, so competent an authority as the Mr. J. Ralli, the head of the firm of Messrs. Ralli Brothers, in Calcutta, says that in his opinion "relatively pure wheat can "be supplied from India. It is a question of price."

14. How then in the face of all this evidence is it possible to assert that the normal state of Indian wheat on the Calcutta side is to contain 5 to 7 per cent. of foreign matter? It may be admitted that its normal state is to contain 2 to 3 per cent. of other grains and dust, but the deliberate adulteration with refuse, bits of brick, and prepared adulterants is the result of the abnormal, factitious, and unhealthy system of having a fixed standard of 5 to 7 per cent. of refraction, a system which obviously holds out a direct and powerful incentive to adulteration up to that standard, and makes it positively wrong for Government officers to advise or encourage cultivators to produce pure grain. Neither can it be correctly said, as far as the Calcutta trade is concerned, that the conditions of it are gradually and slowly improving. On the contrary there has, the Calcutta Chamber of Commerce remark, been a deterioration in the quality of wheat brought to this port in recent years. Wheat has, it has been stated, been shipped from Calcutta in the present year in a dirtier condition than ever before, containing admixture of foreign substances up to 12 per cent, while the total quantity exported fell from 217,000 tons in 1887-88 to 147,000 tons in 1888-89 and to 78,000 tons in 1889-90.

15. If wheat were bought on analysis in London, as is done in Marseilles, there would be no motive for adulteration and no object in exporting dirt, while the normal condition of Indian wheat, to which the London Corn Trade Association attach so much importance, would not be in any way affected. As to the question of weeviling, on which so much stress is laid in this connection, it is to be remarked that Mr. Charles Whitehead, agricultural adviser to the Lords of the Committee of Council for Agriculture, holds that "the foreign "matter annexed with wheat imported from India serves as a medium for the "wholesale transportation of insects injurious to crops; that the admixture of "dirt, seeds, and rubbish causes the wheat to heat, which is detrimental to "its quality and at the same time causes the weevils to propagate unusually "and to materially damage it. Besides the actual money loss occasioned by

* Board of Trade's Journal No. 35 for June 1889, page 687.

"these weevils, it is stated that the flour made "from wheat much infested by them is injurious to health." Whatever, then, the evils arising from weeviling may be, it is evident that they are aggravated by a system which encourages and even necessitates admixture of dirt, which causes the weevils to "propagate unusually," and thereby renders "the flour injurious to health." For these reasons I agree in the opinion expressed by the Bombay Chamber of Commerce in their letter dated 14th June 1889, to His Excellency the Governor of Bombay, that the reasons given by the London Corn Trade Association for adhering to the present system are either incorrect in fact or irrelevant, and I am of opinion that no improvement in the purity of Indian wheat will be brought about by grain-elevators, threshing-machines, or by other means, unless and until that system is changed either by—

(1) reducing the standard of refraction to 2 to 3 per cent., which is the normal percentage of admixture of foreign matter; or

(2) by making pure wheat the basis of contract, thus refracting only the actual quantity of foreign matter found on analysis.

It is open to the London Corn Trade Association to adopt either of these courses, and it is difficult to see what the objections to them are, assuming that the exporters and importers do not, as alleged by the Agri-Horticultural Society, derive their profits from the present admixture of dirt.

16. A further question remains for consideration, namely, whether wilful adulteration in this country should be put down by legislation. Mr. John Mc-Dougall in a letter dated 25th March, to the Under-Secretary of State, strongly advised that, failing the adoption of the other measures suggested, it should be made penal to deal in, or export, grain to be used for human food, in any way adulterated. Mr. Seth Taylor, the President of the London Corn Trade Association, at the conference held in the India Office, remarked on this point as follows:—

> We accept your Lordship's disclaimer that you are not going to dictate between the buyer and seller which, I think, would be beyond the scope of our legislature, whatever may be done in other countries, but I think that the limit to which the Government might interfere with advantage would be the prevention of wilful admixture of foreign substances in wheat in India. We must discriminate between what is naturally grown and is necessarily harvested with the wheat, and the system of mixing dirt with the wheat to bring it down to a standard below that which should come here. That, of course, one feels is a practice which might very fairly be made a penal offence. But that rests with your Lordship and the Government. I am quite sure that it would be to the interest of every one if such an enactment could be passed. The difficulty there is in fixing a limit of 2 per cent. refraction is owing not only to dirt, but to the seeds of various kinds that are grown amongst the wheat. We have not only from India but from other countries foreign elements grown in the wheat, and to have a system of cleaning wheat at the port of shipment would add more to the cost of wheat than the buyer would give on the other side.

17. It thus appears that the London Corn Trade Association as represented by their President would be in favour of legislation with a view to stop deliberate adulteration, as such legislation, it is said, would be in the interest of every one. I would not, however, recommend recourse to such legislation. It is evident as long as contracts are made on the basis of 5 per cent. of foreign matter, that if wheat is produced from the threshing-floors with only 2 per cent. of foreign substances, and wilful admixture of foreign matter be not allowed, the gainers would be the merchants at home, for they would secure grain with only 2 per cent. of dirt, when they had contracted and paid for grain with 5 per cent. of dirt, and the losers would be the ryots and petty dealers in India, who would obtain for comparatively pure grain the same price as for wheat with 5 to 7 per cent of mixture. If, then, legislation is to be had recourse to at all, it should be designed not alone with a view to punish deliberate adulteration, but also with a view to punish trading or dealing in grain which has been adulterated. It cannot be said that the practice of adulterating wheat at present followed is punishable under the Indian Penal Code, for it is not certain that the adulterants are deliterious to human health, inasmuch as it is said that the dirt and adulterants are removed by millers in England before the flour is consumed, nor can the practice be considered fraudulent, inasmuch as the purchasers of adulterated wheat contract for, and purchase the dirt, and know what they are buying. The persons who to some extent suffer from the present system are the consumers of flour in

England who have to pay unnecessarily for cost of carriage of five to seven maunds of dirt for every hundred maunds of wheat, then to pay for the extra cost of separating the wheat from the dirt in England, and at the same time obtain for consumption at a needlessly high rate, flour which must be less wholesome than if it were made from wheat imported in a pure state. But the class which chiefly suffers are the Indian ryots, who are placed by the system in an unfavourable position to compete with foreign markets, and may in time, in consequence of the system, be driven out of the market altogether.

18. The proposal made by the Chamber of Commerce to allow railway companies to raise the limits of special class consignments of wheat and seeds, intended for export, from the present limit of a wagon load, to 50 tons (these special class consignments are carried at specially low rates) is one which cannot, in my opinion, be supported. It is not clear how the adoption of this proposal could affect the cleanliness of wheat, while the proposal is obviously objectionable, on other ground, as tending to unduly favour large exporters at the expense of the growers and petty dealers. The adoption of the proposal would, it is said, draw a sharp line between wheat intended for export and that intended for local consumption. The latter is now adulterated even more than the former, and consignments originally intended for local consumption, with admixture of 10 to 12 per cent. of dirt, are sometimes bought up by exporters and shipped as they stand, but the same thing would happen supposing the Chamber's proposal to be accepted.

19. To sum up, I am of opinion that the elevators may be tried in 15 selected stations as proposed, provided the Company make their own arrangements for the purchase and sale of their grain, without the interference of Government officials; that a guarantee of interest at 4 per cent. on a maximum outlay of £25,000 per annum may be given for five years and free sites for buildings; but I doubt whether the elevators will have any appreciable effect in causing clean grain to be exported from India, as long as the present system of 5 to 7 per cent. refraction continues; that this system renders the admixture of dirt and foreign substance up to that standard inevitable, that the reasons given by the London Corn Trade Association for adhering to the present system, so far as Calcutta is concerned, are founded on misapprehension of facts; that their conclusions ought to be reconsidered; that special legislation should not at present be had recourse to, but if other remedies fail, that it will then be a question for consideration whether, as suggested by Mr. McDougall of London, it should not be made penal to deal in or export wheat, intended for human food, which there is reason to believe has been wilfully adulterated or contains substances deleterious for human consumption.

I have the honour to be,

SIR,

Your most obedient servant,

M. FINUCANE,

Director of the Department of Land Records and Agriculture, Bengal.

J. B. K.—Reg. No. 3175C & 3418C—577—16-7-90.

GRAIN ELEVATORS.

At a meeting held in Darjeeling on 28th May 1890.

PRESENT:

MR. J. A. RALLI, MR. PETROCOCHINO } *Merchants*,
„ PALLACHI, *Broker*,
„ FINUCANE, *Director of Agriculture, Bengal*,

the following questions connected with the subject of erection of grain elevators in India and the impurity of Indian wheat were discussed—

Questions.	*Answers.*
Is the scheme described in Mr. Smith's letter, dated 17th September 1889 (which was read), one which is suitable for India?	*Messrs. Ralli, Petrocochino and Pallachi* consider that the system is not suited to India, and if it were, they think that the concessions and privileges which Mr. Smith asks for are so impracticable that they need not at present be considered seriatim. It would be obviously out of the question to provide land for the Company's purposes free of cost in every railway station from which wheat is exported, or to guarantee that similar facilities will not be afforded to a competing Company, or to guarantee interest at 4 per cent. on any amount which the Company may deem it desirable to expend.
2. Apart from the general scheme, is it desirable, as an experiment, to give the facilities asked for to enable the Company "to select a few stations on some of the principal grain-carrying railways, and to conduct thereat simple cleaning and grading operations, returning the grain into bags properly secured, and covered by certificates as to the quantity and quality, thus discarding for the present the idea of the elevator proper"?	2. *Mr. Finucane* said that as Mr. Smith proposes to return the grain to the bags, and to let the owners dispose of it as best they can the advantage of the elevators was not apparent. If an adequate price cannot, as is alleged, be now got for clean grain, and if it pays people to have the grain as produced from the threshing-floors mixed with dirt, why should they bring their grain to be cleaned to the elevators? If they did bring grain to be cleaned, why should the fact of its being cleaned in the elevators secure for it an adequate price if, as is asserted, clean grain does not now fetch an adequate price? *Mr. Ralli* said people would not bring their grain to the elevators to be cleaned. Wheat can now be cleaned at a very low cost. Machinery was introduced by his own firm for cleaning grain, and grain was cleaned; but it was found that it did not fetch a relatively higher price. It is not clear how the fact of its being cleaned in the elevators would secure an adequate price for it. The process would probably be more expensive than cleaning by native agency with sieves. Therefore the elevators must be financial failures. Messrs. Pallachi and Petrocochino agreed. In this connexion Mr. Ralli adds that he understands the Elevator Company will charge on all certificates granted an uniform wastage of a certain percentage, perhaps ½ per cent. per month. This would, in his opinion, be most objectionable, because it would place the man who delivers a parcel of wheat in good condition on the same footing as one who delivers badly weevelled wheat which will go on deteriorating in weight to a much greater extent than good conditioned parcels. The one man will thus benefit at the expense of the other.
3. How would a plan work of having the owners of the elevators buy and sell the grain at their own risk, *i.e.*, suppose Mr. Smith's Company were to buy the grain from	3. *Mr. Pallachi* thinks that this plan is worth a trial, provided that no monopoly is given in any shape. If the Company believe in the efficacy of their elevators in reducing the cost of

cultivators, traders or others on the best terms they can, then bundle, clean and export it themselves at their own risk, and thus endeavour to make a market for clean grain at home? Would Government in this case be justified in giving land for the buildings on State Railways, and guaranteeing interest on the outlay on buildings and machinery, as proposed by Mr. Smith, up to a maximum outlay of Rs. 25,000 for five years? This would involve a guarantee of only £1,000 a year for five years. If the Company succeeded, they might then be left to extend their operations without Government interference; if they failed, the risk, so far as Government is concerned, would not be great. No monopoly should, of course, be given to them, and no guarantee as against other companies or firms. Inasmuch as they would be pioneers in trying the experiment of procuring clean grain and obtaining a market for it, might they be encouraged to the extent of giving them free sites for their elevators at the selected railway stations where they propose to begin their operations, and might they be guaranteed 4 per cent. interest on an outlay on buildings and machinery up to a maximum outlay of £25,000 for five years, being, after that term, left to work on purely commercial principles?

4. Messrs. Anderson, Wright and Company say that the grain-elevator system is unsuited to India, and urge that there is no justification for the acknowledgment in court of a contract for wheat with 5 per cent. or 10 per cent. adulteration. Up-country firms, both Native and European, would, they say, gladly see a market for clean grain forced upon exporters. This can be accomplished by Government enacting, *both here and England*, that no contract will be recognised in a court of law unless based on a price for pure wheat. Were this the case, no up-country dealer would risk paying railway carriage on 5 tons of dirt for every 95 tons of pure wheat, and no buyer would accept of wheat without getting the full equivalent of the loss he would sustain on the refraction by sending parcels to Europe.

The Agri-Horticultural Society urge the same view, and say "there is a well-established custom of deliberate adulteration, that a regular market price for suitable adulterants exists in the exporting districts, and that sellers purchase these materials and mix them with their wheat. The shippers make the best bargain they can as to allowances (for dirt) with the sellers, and sell fair average at home. Practically their profit depends on what they get in this way."

Queries.

(*a*) What would be the objections to such an enactment as Messrs. Anderson, Wright and Company and the Agri-Horticultural Society propose?

(*b*) Are these objections outweighed by the advantages to the trade and public which would be attained?

turning out clean grain, and if they believe that they can get an adequate price for clean wheat, they should be prepared to try the experiment on these terms. But Mr. Pallachi himself thinks the elevators will be financial failures, because the increase of cost of cleaning the grain will be more than the increase in price which will be obtained for the cleaned grain at home.

Mr. Ralli does not think that Government would be justified in offering any guarantee, because he thinks the scheme has no chance of success. He would not himself invest a pice in elevators on this or any other plan. Mr. Petrocochino agreed with Mr. Ralli.

Mr. Ralli adds that basing oneself on the experience of firms long established, the necessary staff and organization for carrying out such a scheme would be so costly as to prejudice any reasonable chance of success. It would be tantamount to constituting the Grain Elevator Company into a mercantile concern to which one season's unfavourable experiment would be disastrous, especiallly with so limited a capital.

4. *Mr. Ralli* says the objections to such an enactment are the following:—

1*st*.—The general objection to Government interference in trade.

2*nd*.—Such an enactment would result in an evasion of the letter of the contract. The Calcutta merchants would have no objection to such an act, if the home merchants have none. The Calcutta merchants are the servants of the home consumers. It is because the home markets pay relatively better prices for unclean wheat that shippers find it better to export it.

It is not because of difficulty in procuring clean grain that it is not exported, but it is because there is a better demand for dirty wheat that dirty wheat is exported. Mr. Pallachi entirely agrees in this view; so does Mr. Petrocochino. The statement is not correct that the profits of the shippers depends on the system of refraction, the home buyer pays a price knowing what he has to get. In case of excess admixture the shipper is mulcted in heavy allowances.

With reference to the statement in No. 4, Anderson, Wright and Company, to the effect "that no up-country dealer would risk paying railway carriage on 5 to 10 per cent. of dirt, Mr. Ralli remarks that sellers send down seeds ordinarily containing a greater amount of admixture than the one contracted for. Although, for instance, a contract of linseed stipulates that in the event of the admixture exceeding a certain percentage buyers (besides several other options have also that of rejection), it has been found impracticable to enforce it.

(c) Is it true that the profits of exporters practically depend on adulteration.

5. Will the alterations made as to forming the standards in which deliveries will be compared in case of need by the London Corn Trade Association have any effect in causing cleaner grain to be exported than heretofore?

5. *Mr. Ralli* says the alteration made is one in the right direction, and will probably check any tendency for future increase in the admixture of wheat shipped from India. Messrs. Pallachi and Petrocochino agree.

6. As the elevator system is not believed to be likely to afford a remedy, and as the London Corn Trade Association have done practically nothing, and as legislation is not approved, then nothing can be done in order to secure export of clean grain?

The Calcutta Chamber of Commerce have urged on Government the desirability of impressing on cultivators the necessity of producing clean grain. It has been shown that it would, under present conditions, be wrong to impress anything of the kind on cultivators, and that nothig can be done in that direction towards securing export of clean grain. Is nothing then to be done in any direction?

Can wheat be sold on analysis?

Is it sold anywhere on analysis?

6. *Mr. Ralli* says the only remedy is to be found in the consumer in England paying an enhanced price for a superior article. If he does the article can be supplied. He believes that relatively pure wheat can be supplied from India. It is a question of price. As to the question of selling on analysis, wheat in Marseilles is sold, he believes, only by his firm (Ralli Brothers) on the basis of analysis, *i.e.*, fixing a percentage of the components. Usually any differences arising in the deliveries in Marseilles as to analysis are judged by the eye, but of course the buyer has the right of proceeding to analysis. The basis of admixture on which his firm sells, guides the general deliveries of Indian wheat in Marseilles. This change, however, has not, he believes, increased the imports of Indian wheat into Marseilles.

As to the basis of selling on analysis in other countries, he supposes the same might be done in England if buyers are prepared to pay the difference of price, which is very doubtful; but of course it will enhance the cost.

Mr. Petrocochino agrees with Mr. Ralli.

Mr. Pallachi says that, so far as he can judge, there are no difficulties, so far as weeveling is concerned, in selling by analysis It is done in Marseilles; why not elsewhere?

7. How would the recommendation of the Bengal Chamber of Commerce operate towards securing exports of cleaner grain?

Their recommendation is that Government permit railways to raise the limits for special class consignments of wheat and seeds intended for export from the present limit of a wagon-load to a minimum load of 50 tons.

7. *Mr. Ralli* says that there would be greater uniformity, as the tendency would be to throw the export trade from the districts into the hands of larger dealers.

Mr. Pallachi says the adoption of the recommendation of the Chamber would have no effect whatever in the direction of securing export of clean grain, and would be injurious to the interests of petty dealers.

Mr. Finucane said it would also appear to be injurious to cultivators, as throwing additional obstacles in the way of sale and export of small quantities of grain.

8. Where there is deliberate adulteration of wheat going on in the manner described by the Agri-Horticultural Society, should it be stopped by police interference under the Penal Code, if that be possible, and, if not possible under the Penal Code, should an Act be passed to make the practice penal?

8. This is a question of law on which it is preferred not to express an opinion.

The 28th May 1890.

M. FINUCANE,

Director of Land Records and Agriculture, Bengal.

No. 386—90, dated Calcutta, the 7th May 1890.

From—S. E. J. CLARKE, Esq., Secretary to the Bengal Chamber of Commerce,

To—The Director of the Department of Land Records and Agriculture, Bengal.

THE Committee of the Chamber of Commerce have given their best attention to the papers forwarded with your docket No. 463Agri., dated 4th March, and I am now directed in reply to state that in their opinion any attempt to introduce the grain elevator system into this country would be at least premature. Mr. James G. Smith, in his letter to the Secretary of State, dated 17th September 1889, after enumerating the benefits that would

result from the system, and pointing out the directions in which the assistance of Government would be necessary, suggests a tentative commencement of operations by the "Grain Clearing and Elevator Company," pending which the efforts of the promoters would be directed to securing a demand for the clean and graded wheat.

The result of the agitation of last year in favour of clean Indian wheat does not encourage the Committee in the belief that the efforts alluded to by Mr. Smith would meet with any great amount of success. But should a real demand arise for clean Indian wheat, they are of opinion that private enterprise will be equal to the occasion, without requiring either the assistance of, or a guarantee from, Government.

It is not necessary to discuss the suitability of the elevator system to the conditions of the grain trade, at least on two sides of India, further than to say it is open to doubt whether, considering the heavy expenses which the proposed Company would incur, such a Company could successfully compete with the simple, but effective, methods of cleaning, already known to those who deal in grain. The Committee, moreover, consider that the proposal that the Company should hold grain for the owner for an indefinite time, and accept the responsibility for its condition, is scarcely one suited to India owing to the risks attending keeping wheat in this country for any length of time.

The Committee would point out that the scheme contemplates concentrating the grain trade at a few important stations on the principal wheat-bearing railways, and to this extent is diametrically opposed to the policy pursued, for the last eight or ten years, by Government —a policy which, by abolishing the special reduced rates, allowed by the Railway Administration for large consignments, aimed at giving petty stations equal facilities with the larger depôts for sending produce to the coast ports. The Committee understand from the principal exporters of wheat that the opening up of these petty stations is largely responsible for the deterioration in the cleanness of the wheat brought to this port, for whereas this produce was formerly concentrated at some few important stations, there piled and re-bagged, it is now forwarded direct, without any piling, handling, or cleaning, to the coast port. While the Committee are of opinion that it is now impossible to nullify the results of this policy and revert to the old system of special rates for consignments of 200 tons, they would urge most strongly upon Government the necessity of permitting the railways to raise the limit for special class consignments of wheat and seeds, intended for export, from the present limit of a waggon load to a minimum load of 50 tons.

This will have the effect of making a broad line between wheat intended for export and that for local consumption.

It would assist in raising the standard of cleanliness.

It would place the trade in the hands of men of some little means, instead of opening it up, as at present, to impecunious gamblers.

It would lessen the work needful to be done at the shipping port and permit of the grain being properly sampled and examined, and so put a check to the false packing and swindling which is encouraged by the system of petty consignments.

The Committee have reason to believe that if this slight reform were introduced, the benefit resulting to the trade would be so great as to leave little to be desired in the condition in which rail-borne wheat would reach the home market.

No. 556—'90, dated Calcutta, the 18th June 1890.

From—S. E. J. CLARKE, Esq., Secretary, Bengal Chamber of Commerce,
To—The Director of the Department of Land Records and Agriculture, Bengal.

[*Clean Wheat.*]

IN reply to your demi-official No. 171 of 28th May last, the Committee of the Chamber of Commerce direct me, in continuation of my No. 386—'90, dated 17th May; to hand you copy of the letter of the Calcutta Wheat and Seed Association, No. 41II, dated 6th June current.

No. 41II, dated Calcutta, the 6th June 1890.

From—G. M. BARTON, Esq., Assistant Secretary, Calcutta Wheat and Seed Trade Association,
To—The Secretary to the Bengal Chamber of Commerce.

MR. M. FINUCANE'S letter of the 28th ultimo to your address with its annexures, regarding a proposal that the only basis of sale of wheat which should be recognised by law should be that of pure wheat, was duly considered by the Committee of the Association at their meeting held yesterday, when I was desired to let you know, for the information of Mr. Finucane, that in the opinion of the Committee it is useless to try to compel people to clean wheat as long as the Home Trade is indifferent about it, and is satisfied with what it now receives. The Committee further consider that there is no need for legislation on this subject and they regard the enactment of a law on the terms proposed as a most undesirable interference with freedom of contract.

As regards Mr. Finucane's enquiry with reference to the other proposal that the limit for special class consignments of wheat intended for export should be raised by the railways from the present limit of a wagon load to a minimum of 50 tons, the Committee do not think it necessary to express any opinion, as this point will no doubt be dealt with by the Chamber from whom the proposal emanated.

I return the papers herewith.

Dated Calcutta, the 3rd April 1890.

From—R. BLECHYNDEN, Esq., Deputy Secretary to the Agri-Horticultural Society of India,

To—The Director of the Department of Land Records and Agriculture, Bengal.

I HAVE the honour to acknowledge receipt of your endorsement No. 464, dated the 4th ultimo, forwarding, for the expression of this Society's opinion, correspondence accompanying Revenue Department endorsement No. 516—63Agri., dated 11th February 1890, in connexion with establishing grain elevators in India.

2. I am to say that as this Society understands that the different Chambers of Commerce have been consulted, and as the views of the Commercial community will thus be laid before Government, the Society deals with the question wholly in its relation to the cultivators.

3. The establishment of the elevators for the purpose of cleaning grain for export the Society consider, not likely to be of any direct benefit to the grower, for the reasons set forth in the following paragraphs.

4. The conditions under which wheat is grown in India, the small quantities each grower places on the market, the poverty of the people necessitating their selling their produce without delay, and other causes, precludes there being any chance of their being able to avail themselves of the facilities for cleaning offered by the system.

As a rule Indian wheat is not purposely adulterated by the growers. The impurities which exist in it, when it leaves their hands, are due to the system of cultivation and thrashing which are too well known to need description here.

The growers winnow and clean their wheat to the extent their crude appliances will admit, and undoubtedly some of the earth from the threshing-floor, and an admixture of other grains, must remain in the crop. This is estimated at 2 to 3 per cent. of earth, peas and barley. But as the Calcutta contract is for 5 per cent. up to August, and 6 to 7 per cent. after that, it therefore pays the seller to adulterate his batch up to 2 per cent. over the guarantee, or he will lose on the average. This is such a well-established custom that a regular market price for suitable adulterants exists in the exporting districts, and the seller purchases such materials and mixes it with his wheat. The shipper has the lot examined and makes the best bargain he can as to allowance with the seller, and sells 'fair average' at home: practically his profit is what he gets in this way.

It is probable that even the buyers who collect grain, buying the small quantities sold by individual growers at *hâts* and bazars, and selling again to dealers' and merchants' agents, are not likely to be able to deal directly with exporters through the elevators.

4. There is one feature in what is known as the elevator system, which would probably affect the grower prejudicially.

The system is that all grain passing into the elevator is graded and bulked, and a receipt given to each constituent, who, when he requires his grain, receives his quantity from the bulk.

The bulking of such large quantities gives a more even standard than at present exists in India, and these recognised standards again being fixed, their relative prices are fixed.

As a matter of practical convenience, the number of standards or grades will have to be limited, and the present elasticity done away with, so that a superior sample falling into a given class will fetch no more than an inferior sample which is just good enough to pass the standard.

There will therefore be no incentive to buy the best quality of a certain class; the endeavour will be to get the cheapest grain which will pass the standard. This may not matter to the merchant, but the grower, who produces a better sample of grain of the same class as his neighbour's will be no gainer.

5. I am directed to say that, for the reason already given, this society does not enter into the question of the effect which the introduction of elevators would have on the trade in wheat. The Society is aware that there is much to be said from a commercial point of view for the establishment of fixed grades of clean wheat, and for other results of the elevator system. Without offering an opinion on these points, or on the system as a whole, I am to point out that in India the existence of the weevil pest would have to be taken into consideration as a factor against the collection and storing of grain in the manner proposed, and special means would have to be contrived to guard against its ravages, more especially were wheat held over for any time.

The Society is aware that the papers before them contain merely an outline of the scheme proposed. They think, however, that there being no allusion to one of the greatest evils with which Indian wheat has to contend is a serious omission.

6. I am to submit that, if the object of the Government in entertaining the scheme under consideration is to put a stop to the intentional adulteration of wheat in India, a simple remedy exists, viz., to enact that no contract for purchase or sale of wheat will be considered valid unless the price agreed upon is held to be for pure grain. As long as sellers can go into Court and enforce a contract for wheat with 5 per cent. to 10 per cent. adulteration, the evil cannot be stopped. If the price paid was for pure wheat only, no one would expend money on the railway carriage of adulterants which would be deducted from the price, and no exporter would pay freight and charges, unless he got from the seller the full equivalent of what he would lose for any adulterations.

Dated Calcutta, the 5th June 1890.

Demi-official from—R. Blechynden, Esq., Secretary to the Agri-Horticultural Society of India,

To—The Director of the Department of Land Records and Agriculture, Bengal.

I received your demi-official No. 173, dated the 29th ultimo, on the 2nd instant, and though it was marked urgent, I have had to delay replying a couple of days to collect the samples sent herewith.

You ask (1) the value of adulterants, (2) the districts where they trade in them, (3) if they are of such a nature as to be deleterious for human consumption, (4) whether in the opinion of this Society the deliberate adulteration of wheat, if not already penal, should be made so.

(1) The value of adulterants vary: those which are not added intentionally, such as gram and oil-seeds, having a distinct value, in some cases exceeding that of wheat; these, with a small percentage of earth and chaff, compose what may be called the natural adulteration. The adulterants which are added purposely include most of the foregoing taken from the general threshing-floor, and other refuse, small bits of brick, cowdung, and a large proportion of earth. The adulteration thus consists of putting back into the grain a given quantity of what has previously been removed, so as to degrade it to the low standard.

In Calcutta, where there are no threshing-floors, the refuse, fannings and screenings from merchants' godowns and millers' works, are bought by regular dealers whose head-quarters are at Hatibagan. They hand-clean and divide out the gram, oil-seeds, &c., into the qualities sent herewith. The bulk remaining consists of light and weevilled wheat, earth and a proportion of oil-seeds. This is sold as pigeons' food, and is the basis of such adulterants as are added in Calcutta. There is comparatively little done in this way here, as the wheat with the given percentage of refraction comes down from the districts. The price of this material is from 12 annas to Re. 1-2 per maund according to quality, and to it is added the earth which has been separated. These samples are marked B 1, 2 and 3, and E.

The gram and chaff is bought by carters to feed their bullocks, by grain parchers, &c., and the oil-seed is readily sold. This brings us to the (3) question as to whether the adulterants are deleterious. The proportion of foreign matter of every sort not being 8 per cent. in extreme cases, there does not seem much danger, particularly when it is considered that the grain is professedly dirty, and that it is cleaned before being prepared for human food.

(4) As your letter is urgent, and the members of the Committee who would deal with such a reference as yours are absent from Calcutta, I cannot reply to the question of penalising deliberate adulteration. Should you desire it, I can write you on this point hereafter. I believe my Committee think that the remedy suggested in the 6th paragraph of my official letter to you would be quite sufficient, but, for the reasons given, I have not been able to again consult them on this point.

In addition to the samples I send, got from Hatibagan, and lettered according to the enclosed list, I send a collection of 12 samples kindly given to me by Mr. W. W. Duncan. They are from the firm's flour-mill, which has the best machinery for cleaning and sorting grain, as well as for milling, on this side of India. The samples are drawn this morning from the separator, and you will observe that some of the foreign matter could have easily been cleaned out in the exporting district. I have not seen such a collection elsewhere, and think that you will find them of interest.

P. S.—Since writing the foregoing, I have obtained the following additional samples:—

G.—The sweepings collected by the dealers, with the dust taken out. This sample contains wheat of bad quality, oil-seeds, &c. The price in this condition is Re. 1-12 per maund to Rs. 2.

H.—The dust taken out of the above sample, Rs. 9 per cart.

I.—A sample prepared for adulterating wheat, called technically *hatka*.

No. 1. Uncleaned wheat.
„ 2. Refuse from fan-valve of separator before going on to seive.
„ 3. Fannings from first seive of separator.
„ 4. Gram from second seive of wheat separator.
„ 5. Screenings from third seive of wheat separator.
„ 6. Fourth seive of wheat separator.
„ 7. Refuse from fan-valve of separator after passing through the seives.
„ 8. Screenings from Cockle cylinder.
„ 9. Refuse from first valve of smutter.
„ 10. Refuse from second valve of smutter.
„ 11. Fan valve of brush machine.
„ 12. Clean wheat.

Samples from Hatibagan.

A. Grain and barley, price at Re. 1-8 per maund.

B^1. B^2. B^3. } Light and shrivelled grains of wheat, oil-seeds and earth, at Re. 1-2 per maund.

C. Oil-seeds at Re. 1-8 per maund.

D. „ „ 1-4 „

E. Earth „ 0-8 „ or Rs. 10 per cart load.

F. A sample prepared to show the sweepings purchased, none remaining uncleaned.

No. 318, dated Calcutta, the 6th May 1890.

From—J. H. APJOHN, Esq., Offg. Vice-Chairman, Calcutta Port Commissioners,
To—The Director of the Department of Land Records and Agriculture, Bengal.

I HAVE the honour to acknowledge the receipt of your endorsement No. 463—71Agri., dated the 4th March 1890, forwarding, for an expression of the Commissioners' opinion, copy of correspondence which has passed between the Government of India and the Secretary of State on the subject of the formation of a Company for the introduction of grain elevators into India.

2. In reply, I beg to state that the papers were carefully considered by the Commissioners at a meeting held on the 30th April 1890, and, in pursuance of a resolution then passed, I have to state that the Commissioners are of opinion that the scheme contemplated is not one which is suited to this country, or one which should have the support of Government of the kind asked for. It, however, seems to them that if the requirements of trade necessitated the introduction of such a system, and there was a prospect of its proving remunerative, it would be taken up by private enterprise.

No. 2728, dated Calcutta, the 18th March 1890.

From—LIEUT. EATON W. PETLEY, R.N., Port Officer and Shipping Master, Calcutta.
To—The Director of the Department of Land Records and Agriculture Bengal,

I HAVE read the papers forwarded under your endorsement No. 466Agri., of the 4th instant, and I regret that I am hardly in a position to pass any opinion on that subject.

No. 1814, dated Calcutta, the 21st April 1890.

From—J. SCORELL ARMSTRONG, Esq., Collector of Customs, Calcutta,
To—The Director of the Department of Land Records and Agriculture, Bengal.

IN reply to your memorandum No. 467 of the 4th March 1890, I have the honour to state that I am not sufficiently acquainted with the working of the system of the grain elevators, which I understand is in vogue in America, to be able to give you an opinion in the matter on which I could ask you to rely. You will, I conclude, have referred to the Chamber of Commerce and the Port Commissioners, who will no doubt have been able to speak with authority on the subject.

2. I certainly do not understand why, if these grain elevators are really required, private enterprise should not come forward and supply them ; and I should be very unwilling, on the papers before me, to recommend any guarantee being given. Every reasonable assistance would no doubt be willingly given by the Port Commissioners here.

No. 839M, dated Calcutta, the 26th April 1890.

From—LIEUT.-COL. G. F. O. BOUGHEY, Manager, Eastern Bengal State Railway System,
To—The Director of the Department of Land Records and Agriculture, Bengal.

IN reply to your letter No. 469Agri, dated 4th March 1890, I have the honour to make the following remarks regarding the proposed Company for the introduction of grain elevators in India.

2. As regards this railway, the traffic in wheat and seeds is small, and it is unlikely that an elevator would be required at any of our up-country stations. If, however, it should hereafter at any time be considered expedient to erect one, we have no employe at such stations who would be qualified to issue certificates of quality.

3. It is, I think, doubtful if higher railway freights would be obtained for wheat dealt with in elevators; the consignor would consider that he paid the Elevator Company the cost of handling his grain, and would probably call for a corresponding reduction in the rates. The railway would effect no practical saving in being relieved of the cost of receiving and watching the grain.

4. The free grant of land at metropolitan stations and Port Trust property is a very large concession, but the demands of the promoters appear to me generally to be so exorbitant that this point does not perhaps call for special remark. If they have any real belief in the effects to be produced from the introduction of the elevators on which so much stress is laid on page 2 of the printed papers, they should be assured of the success of the project on its own merits without calling on Government to guarantee interest and to grant free land.

5. The venture is of course a novel one in this country, and if the promoters were prepared to erect elevators on one railway and at one port, they might reasonably be given a monopoly for 25 years and land free of rent until such time as the undertaking paid over a certain percentage, when arrears could be made good. But as regards the proposals for cleaning, grading and storing wheat without incurring expenditure on elevators, it seems to me that if such a course could be commercially undertaken at a profit, it would have been introduced long ago without any company or guarantee.

6. In conclusion, I may add that I have no practical acquaintance with the details of dealing with grain on the elevator system as worked in America or elsewhere, and I therefore give my opinion on the subject with some diffidence.

No. 2507, dated Mozufferpore, the 19th April 1890.

From—HARRY STUART, Esq., Offg. Manager and Engineer-in-Chief, Tirhoot State Railway,

To—The Director of the Dept. of Land Records and Agriculture, Bengal.

IN reply to your endorsement No. 470Agri., dated 4th ultimo, I have the honour to state that I am strongly in favour of the scheme of having elevators at large and important stations, but I doubt very much their giving any return on the capital outlay on a line like the Tirhoot State Railway, where the stations are situated so closely together.

I should oppose the railway staff having anything to do with the working of the elevators from a mercantile point of view, such as sampling, &c., &c. The Railway might give lands and sidings, but I should be opposed to giving any guarantee or granting a monopoly to any one firm or company.

No. 1812, dated Nalhati, the 3rd May 1890.

From—BABOO R. G. MOOKERJEE, Manager, Nalhati State Railway,

To—The Director of the Department of Land Records and Agriculture, Bengal.

WITH reference to your No. 471Agri. of 4th March 1890, regarding the introduction of grain elevators in India, I have the honour to state that I am of opinion that the scheme is one which deserves encouragement and support from Government.

No. 5862, dated Calcutta, the 14th May 1890.

From—The Agent, East Indian Railway Company,

To—The Director of the Department of Land Records and Agriculture, Bengal.

WITH reference to your docket No. 468A, dated the 4th March last, regarding the introduction of grain elevators in India, I am of opinion that until they are introduced the purity of Indian wheat and seeds for export cannot be guaranteed. At the same time I beg to point out that until a proper understanding is arrived at between seller and buyer, it would be useless to attempt to introduce them.

Doubtless in course of time a better and purer description of wheat will lead to a larger demand, and the country would benefit by increased exports.

On the whole, I am in favour of the introduction of elevators, but I would deprecate any attempts to create a monopoly in favour of any port or railway in India.

No. 7299, dated Calcutta, the 30th June 1890.

Demi-official from—H. E. SANDERSON, Esq.,

To—The Director of the Department of Land Records and Agriculture, Bengal.

WITH reference to your demi-official letter No. 172, dated the 29th of May 1890, I beg to inform you that Mr. Campbell has been away at Mussoorie for the last six weeks nearly. I enclose a letter that was written by the Company's Traffic Manager, No. 2937 of the 25th instant, for your information.

No. 2937, dated Calcutta, the 25th June 1890.

From—N. ST.L. CARTER, Esq., Traffic Manager, East Indian Railway,

To—The Acting Agent, East Indian Railway.

Minimum weight for export produce chargeable at the lowest rate.

Your No. 6469 of the 3rd instant.

THE question does not appear to have been quite clearly stated in the letter from the Chamber of Commerce. We have not abolished the special reduced rates formerly only given for large consignments, but we have removed the condition that the lowest rate shall be subject to a minimum of a train load or other large quantity. Our charge for wheat and seeds in wagon loads is now lower than the specially reduced rates formerly quoted for large consignments.

The train load minimum was withdrawn fourteen years ago under instructions from the Board of Directors, and I cannot find that since then there has been any desire to re-introduce it, or any other minimum which would be likely to affect traffic from the small stations which we have opened from time to time.

At present, owing to the tonnage of our wagons, it would be to our detriment to introduce a minimum of 50 tons (irrespective of other considerations). Of 50 tons say 46 could be loaded in four wagons, and the fifth must be reserved entirely for the remaining four tons to prevent confusion with mixed consignment, &c.

Enclosure returned.

Dated Calcutta, the 12th March 1890.

From—MESSRS. RALLI BROTHERS,

To—The Director of the Department of Land Records and Agriculture, Bengal,

WE beg to acknowledge receipt of your letter, dated 3rd March, requesting our opinion regarding the introduction of grain elevators into India.

We have carefully perused the documents attached to this letter, and regret to inform you that, as we have no experience of the working of elevators in America, we are not in a position to express a decided opinion on the subject further than to say in a general way that, viewing the distinct nature and diversity of quality of the Indian grain compared with American, we very much question whether the introduction of any such system in the handling of Indian grain would be successful.

Dated Calcutta, the 7th May 1890.

From—Messrs. William Moran and Company,
To—The Director of the Department of Land Records and Agriculture, Bengal.

We have to acknowledge your letter No. 1060 of yesterday's date, forwarding the papers relative to the introduction of grain elevators into India.

We have given the papers very careful consideration, and are of opinion that the measure is one worthy of support and encouragement.

Dated Calcutta, the 14th May 1890.

From—R. J. Reid, Esq., Honorary Secretary, Brokers' Exchange,
To—The Director of the Department of Land Records and Agriculture, Bengal.

With reference to your reminder No. 1120Agri., of 12th instant, and previous communications, regarding the introdution of grain elevators into India, I beg to say that this Exchange will have no opinion to offer on the subject.

Dated Calcutta, the 12th March 1890.

From—Messrs. Anderson, Wright & Company,
To—The Director of the Department of Land Records and Agriculture, Bengal.

In reply to your favour of 3rd instant, anent Messrs. Ritchie, Steuart and Company's scheme for the introduction of grain elevators.

The application of the American system to India is, in our opinion, not what is wanted. Indian wheat is all shipped in bags, whilst American goes to a large extent in bulk, and the elevator is of no use where the bagged article is the rule.

This Messrs. Ritchie, Steuart and Company really concede, when they come down to proposing to open at a few stations and "conduct thereat simple cleaning and grading operations, returning the grain into bags properly secured."

We think most firms having up-country connections have tried this, but home-buyers and brokers are too powerful, and will not allow settlement to be made based upon the clean wheat. With an ordinary graded netting and a few coolies 100 tons daily can be turned out in any godown at a nominal expense without Government guarantee, and up-country firms, both Native and European, would gladly see a market for clean wheat forced on exporters. This can be accomplished by Government enacting, both here and in England, that no contracts will be recognised in a Court of law unless based on a price for the pure wheat. We have pointed out again that there is no justification for the acknowledgment in Court of a contract for wheat with 5 per cent. or 10 per cent. adulteration. The only basis of sale recognised by law should be that of pure wheat, and were this the case, no up-country dealer would risk paying railway carriage on 5 tons of dirt for every 95 tons of pure wheat, and no buyer would accept of wheat without getting the full equivalent of the loss he would sustain on the refraction by sending the parcel forward to Europe. As long as the law recognises contracts for adulterated wheat, so long will the trade in it continue.

Dated Calcutta, the 18th April 1890.

From—Messrs. Gladstone, Wyllie & Company,
To—The Director of the Department of Land Records and Agriculture, Bengal.

In reply to your favour, demi-official No. 73Agri. of the 3rd ultimo, with reference to the introduction of grain elevators into India, we regret that, not being wheat shippers, and therefore not having the intimate knowledge of the trade required, we do not feel in a position to give an opinion on the subject.

Dated Calcutta, the 7th May 1890.

From—Messrs. Balmer, Lawrie and Company,
To—The Director of the Department of land Records and Agriculture, Bengal.

In reply to yours of 2nd instant, we think the proposed alteration deserving of the support of Government, as from the correspondence we gather that it will benefit the wheat-industry.

We shall be glad to know whether we can be of any assistance to the proposed Company in Calcutta.

C. E. G. and others—Reg. No. 3175C & 3418C—577—16-7-90.